

## LESSON 2-2: Adding Positive and Negative Integers

### Objective

To add two positive numbers using Algeblocks and the Basic Mat

To add two negative numbers using Algeblocks and the Basic Mat

### Vocabulary

Algeblocks, Basic Mat, positive, negative, addition, unit block, sum

### Additional Materials

Lesson 2-2 Worksheet  
(on CD-ROM)

### Introducing the Lesson

Have students review basic addition facts. To make this review more interesting and challenging at this level of mathematics, have a timed race to see which student or team of students can correctly find the sums of a set of facts faster.

### Teaching the Lesson

Have the students read the example, then ask:

- What are you being asked to do? [Add two numbers.]
- What can you tell about the two numbers? [Both are negative numbers.]
- Do you know what sign the sum will have? [Yes, it will have a negative sign.]

Model the addition of the board using a number line, then have students model the example on their own mats as you read the steps. Have students suggest and model several other simple addition problems so they will become familiar with using the Algeblocks and the Basic Mat.

The **Try It** questions can be used for class discussion. Assign the remainder of the lesson for independent work.

### Journal Entry

Describe how you can add two negative integers using Algeblocks and the Basic Mat.

# Answer Key

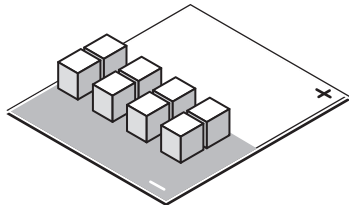
## Lesson 2-2: Adding Positive and Negative Integers

Use Algeblocks and the Basic Mat to model addition.

**Example:** Add:  $-8 + (-3)$

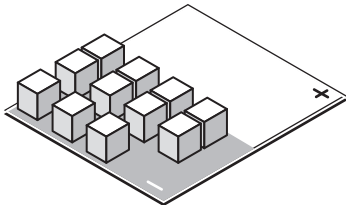
### Step 1.

Model the first integer on the mat. Remember this integer is negative.



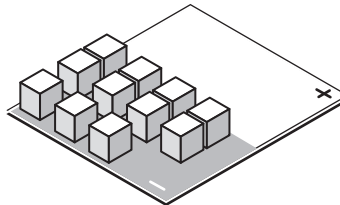
### Step 2.

Model the second integer on the mat.



### Step 3.

Read the mat.  
 $-11$



### Step 4.

Record.  
 $-8 + (-3) = -11$

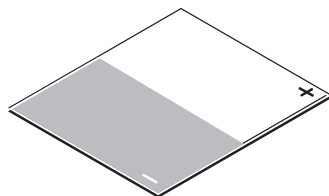
### Try It

- What would change in the example if the numbers being added were positive?  
the side of the mat used to model the addition; the signs of the integers and the sign of the sum
- Explain how to find the sum of  $-4 + (-6)$ .  
Model  $-4$  by putting 4 unit blocks on the negative side of the mat. Model  $-6$  by putting the 6 unit blocks on the negative side of the mat. Read the mat as  $-10$ .

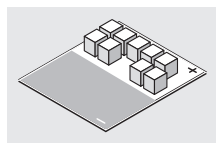
### Practice

Draw blocks to show the addition. Write the sum.

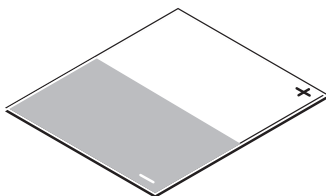
3.



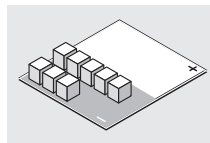
$$7 + 2 = \underline{9}$$



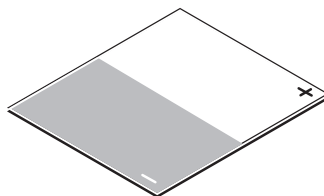
4.



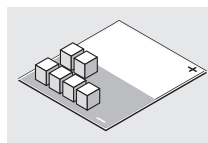
$$-5 + (-3) = \underline{-8}$$



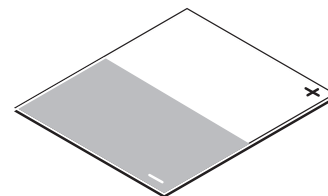
5.



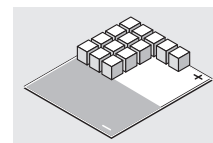
$$-2 + (-4) = \underline{-6}$$



6.



$$5 + 9 = \underline{14}$$



Find each sum.

7.  $-5 + (-6) = \underline{-11}$

8.  $3 + 2 = \underline{5}$

9.  $-3 + (-8) = \underline{-11}$

10.  $5 + 4 = \underline{9}$

11.  $-5 + (-2) = \underline{-7}$

12.  $7 + 4 = \underline{11}$

13.  $-2 + (-9) = \underline{-11}$

14.  $6 + 7 = \underline{13}$